

IN THE CLAIMS

1. (Cancelled)
  2. (Previously Presented) The method according to claim 29, wherein said plurality of lines along the surface of the three-dimensional form model corresponding exactly to contours of the three-dimensional form model comprises a parametric curve group.
  3. (Previously Presented) The method according to claim 2, wherein in said modifying step, by moving control points of the parametric curve group, a part of the parametric curve group in correspondence to the movement of the control points is moved along the surface of the three-dimensional form model.
  4. (Cancelled)
  5. (Currently Amended) The method according to claim 29 wherein the ~~generate generated~~ plurality of lines comprises a spline curve group.
- 6-8 (Cancelled)
9. (Previously Presented) A computer-readable medium having stored thereon a plurality of sequences of instructions which, when executed by a processor, cause said processor to generate three-dimensional form data by performing the steps of:

preparing a three-dimensional form data representing a three-dimensional form model;

projecting two-dimensional horizontal closed curves encircling the three-dimensional form model with leaving a space to the three-dimensional form model and vertical lines intersecting the closed curves to the three-dimensional form model to generate a group of curves along a surface of the three-dimensional form model; and

modifying the group of curves by moving a curve or curves in the group along a surface of the three-dimensional form model.

10. (Previously Presented) The computer-readable medium according to claim 9, wherein said computer-readable medium comprises a magnetic medium

11. (Previously Presented) The computer-readable medium according to claim 9, wherein said computer-readable medium comprises a flexible disk.

12. (Previously Presented) The computer-readable medium according to claim 9, wherein said computer-readable medium comprises a hard disk.

13. (Previously Presented) A computer-readable medium having stored thereon a plurality of sequences of instructions which, when executed by a processor, cause said processor to generate three-dimensional form data by performing the steps of:

preparing a three-dimensional form data representing a three-dimensional form model;

projecting two-dimensional horizontal closed curves encircling the three-dimensional form model with leaving a space to the three-dimensional form model and vertical lines intersecting the closed curves to the three-dimensional form model to generate a group of curves along a surface of the three-dimensional form model; and

modifying the group of curves by adding a curve or curves projected to the three-dimensional form model to the group of curves.

14. (Previously Presented) The computer-readable medium according to claim 13,

wherein said computer-readable medium comprises a magnetic medium.

15. (Previously Presented) The computer-readable medium according to claim 13,

wherein said computer-readable medium comprises a flexible disk.

16. (Previously Presented) The computer-readable medium according to claim 13,

wherein said computer-readable medium comprises a hard disk.

17. (Previously Presented) A computer-readable medium having stored thereon a plurality of sequences of instructions which, when executed by a processor, cause said processor to generate three-dimensional form data by performing the steps of:

preparing a three-dimensional form data representing a three-dimensional form model;

projecting two-dimensional horizontal closed curves encircling the three-dimensional form model with leaving a space to the three-dimensional form model and vertical lines intersecting the closed curves to the three-dimensional form model to generate a group of curves along a surface of the three-dimensional form model; and

modifying the group of curves by deleting a curve or curves in the group of curves.

18. (Previously Presented) The computer-readable medium according to claim 17,

wherein said computer readable medium comprises a magnetic medium.

19. (Previously Presented) The computer-readable medium according to claim 17,

wherein said computer-readable medium comprises a flexible disk.

20. (Previously Presented) The computer-readable medium according to claim 17,

wherein said computer-readable medium comprises a hard disk.

21. (Previously Presented) A computer system comprising:  
a processor; and

a memory coupled to said processor, the memory having stored therein sequence of instructions which, when executed by said processor, cause said processor to generate three-dimensional form data by causing the processor to perform the steps of:

projecting two-dimensional horizontal closed curves encircling the three-dimensional form model with leaving a space to the three-dimensional form model and vertical lines intersecting the closed curves to the three-dimensional form model to generate a group of curves along a surface of the three-dimensional form model; and

modifying the group of curves by adding a curve or curves projected to the three-dimensional form model to the group of curves.

22. (Previously Presented) A computer system comprising:

a processor; and

a memory coupled to said processor, the memory having stored therein a sequence of instructions which, when executed by said processor, cause said processor to generate three-dimensional form data by causing the processor to perform the steps of:

projecting two-dimensional horizontal closed curves encircling the three-dimensional form model with leaving a space to the three-dimensional form model and vertical lines intersecting the closed curves to the three-dimensional form model to generate a group of curves along a surface of the three-dimensional form model; and

modifying the group of curves by deleting a curve or curves in the group of curves.

23-28 (Cancelled)

29. (Currently Amended) A computer-implemented method of generating three-dimensional form data to be used in a computer apparatus, the method comprising the steps of:

obtaining an electronic data of a three-dimensional form model;  
generating a plurality of lines along a surface of the three-dimensional form model  
by projecting horizontal lines encircling the three-dimensional form model with leaving a space to the three-dimensional form model and vertical lines intersecting the horizontal lines to the three-dimensional form model, the plurality of generated lines corresponding exactly to contours of the three-dimensional form model; and

modifying the plurality of generated lines in response to a user instruction, wherein  
the user instruction includes at least one of an addition of at least one line in the  
plurality of lines, a movement of at least one of the lines, and a deletion of at least one of the  
lines,

after the modification, the plurality of lines still correspond exactly to contours of the  
three-dimensional form model, and

both before and after the modification, any one of the plurality of lines do not cross  
with any one of the remaining ones of the plurality of lines.

30-33 (Cancelled)

34. (Previously Presented) The method according to claim 29, further comprising  
the step of:

generating a summary data for representing the modified plurality of generated lines, wherein a quantity of the summary data is smaller than a quantity of the obtained three-dimensional form data.

35. (Previously Presented) The method according to claim 29, wherein the electronic data representing a three-dimensional form model is provided from a generator which generates the electronic data.

36. (Cancelled)

37. (Previously Presented) A computer system comprising:  
a processor; and  
a memory coupled to said processor, the memory having stored therein a sequence of instructions which, when executed by said processor, cause said processor to generate three-dimensional form data by causing the processor to perform the steps of:

projecting two-dimensional horizontal closed curves encircling the three-dimensional form model with leaving a space to the three-dimensional form model and vertical lines intersecting the closed curves to the three-dimensional form model to generate a group of curves along a surface of the three-dimensional form model; and

modifying the group of curves by moving a curve or curves in the group along a surface of the three-dimensional form model.

38. (Currently Amended) A computer-implemented method of processing an electronic data representing a three-dimensional model, the method comprising the steps of:

receiving a first electronic data of a three-dimensional model of an object which has been acquired on the object;

generating a second electronic data that represents a first set of uncrossed lines corresponding exactly to first portions on a surface of the three-dimensional model, said second electronic data being generated by projecting horizontal lines encircling the three-dimensional model with leaving a space to the three-dimensional model and vertical lines intersecting the horizontal lines to the three-dimensional model, wherein a capacity of the second electronic data is smaller than that of the first electronic data; and

generating, from the second electric data, a third electronic data that represents a second set of uncrossed lines corresponding exactly to second portions on the surface of the three-dimensional model, the second portions including at least one portion different from any one of the first portions, wherein

a capacity of the third electronic data is smaller than that of the first electronic data.

39. (Previously Presented) The computer-implemented method according to claim 38, wherein in the step of generating the second or third electronic data, the second or third electronic data is extracted from the first electronic data, around portions at which predetermined lines are projected onto the three-dimensional model.

40. (Previously Presented) The computer-implemented method according to claim 39, wherein positions of the first or second portions are changed by changing the predetermined lines to be projected onto the three-dimensional model.

41-44 (Cancelled)

45. (Currently Amended) A computer-implemented method of generating three-dimensional form data to be used in a computer apparatus, the method comprising the steps of:

obtaining an electronic data of a three-dimensional form model;  
generating a plurality of lines along a surface of the three-dimensional form model  
by projecting horizontal lines encircling the three-dimensional form model with leaving a space to the three-dimensional form model and vertical lines intersecting the horizontal lines to the three-dimensional form model, the plurality of generated lines corresponding exactly to contours of the three-dimensional form model; and

modifying the plurality of generated lines in response to a user instruction, wherein the user instruction includes at least one of an addition of at least one line in the plurality of lines, and a movement of at least one of the lines,

after the modification, the plurality of lines still correspond exactly to contours of the three-dimensional form model, and

both before and after the modification, any one of the plurality of lines do not cross with any one of the remaining ones of the plurality of lines.